

REMARKS

This application has been carefully reviewed in light of the Office Action dated July 2, 2003. Claims 1 to 49 and 54 to 80 are in the application, of which Claim 1 is the sole independent claim. Reconsideration and further examination are respectfully requested.

The objections to the drawings noted in the Notice Of Draftperson's Patent Drawing Review are believed to be addressed by the accompanying Letter Transmitting Substitute Formal Drawings.

In the Office Action, Claims 5, 6, 9 to 66 and 72 to 74 were objected to under 37 C.F.R. § 1.75(c) and were not treated on the merits. The objection is believed to be addressed by the forgoing amendments to the dependency relationships defined in the claims, in which the opportunity for additional clarification has been taken. Withdrawal of the objection and consideration of the claims on the merits are respectfully requested.

Also in the Office Action, Claims 1 to 4, 7 and 8 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,435,830 (Bonnemann) or, alternatively over U.S. Patent No. 4,397,812 (Mallory). Claims 1 to 4, 7 and 8 were also rejected under 35 U.S.C. § 103(a) over Bonnemann or Mallory in view of U.S. Patent 5,795,679 (Kawakami). Withdrawal of the rejections is respectfully requested.

Applicants note in particular that the rejections under 35 U.S.C. § 102 lacks foundation in the prior art, as apparently conceded in the Office Action itself. At page 6, the Office Action specifically states that "Bonneman or Mallory do not disclose the amorphous alloy powders to be electrode materials in a rechargeable battery." The production of "an amorphous alloy material capable of being electrochemically alloyed with lithium as said electrode material" for a rechargeable battery is one element in the

process defined by Claim 1. Since a rejection under § 102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference," it is apparent from the Office Action itself that the rejection under § 102(b) lacks foundation. See MPEP § 2131. Therefore, in view of the deficiencies of Bonneman and Mallory, it not seen how either reference could be anticipatory of the present invention. Withdrawal of the § 102 rejection is requested for this reason and for the reasons provided below.

Nevertheless, Claim 1, from which all other claims directly or indirectly depend, has been amended to include the subject matter of Claims 52 and 53, and those latter claims have been cancelled. As so amended, the present invention includes the step of adding an alkali so that the pH value of a mixture is changed from less than 2 to a value in a range of from 3 to 12.

As set out in independent Claim 1, the present invention relates to a process for producing an electrode material for a rechargeable lithium battery in which an oxidation-reduction reaction is used. According to Claim 1, the following are mixed with a solvent to obtain a mixed solution: (i) the process comprising the step of mixing at least one kind of a metal compound selected from the group consisting of metal salts and metal complexes of a metal capable of being electrochemically alloyed with lithium, (ii) at least one kind a transition metal compound selected from the group consisting of transition metal salts and transition metal complexes of a transition metal, and (iii) a complexing agent. A reducing agent is mixed with the mixed solution to obtain a mixture. The reducing agent contained in the mixture is oxidized to reduce an ion of the metal contained in the mixture and an ion of the transition metal contained in the mixture by adding an alkali to the mixture, so that the pH value of the mixture is changed from less than 2 to a

range from 3 to 12, whereby an amorphous alloy material is obtained capable of being electrochemically alloyed with lithium as the electrode material.

The applied art is not seen to teach or suggest the features of the present invention. In particular, the applied art is not seen to teach the feature of changing the pH value of a mixture obtained from the second step of the process, from less than 2 to a value in a range of from 3 to 12, by oxidizing a reducing agent in the mixture through addition of an alkali.

Bonnemann is seen to relate to a process for the preparation of finely divided microcrystalline-to-amorphous metal and/or alloy powders and of metals and alloys in the form of colloidal solutions in organic solvents. However, Bonnemann is silent as to the adjustment of the pH value of a mixture and does not provide the range specified by the present invention. Consequently, in addition to not disclosing electrode materials made of an amorphous alloy powder, the disclosure of Bonnemann is deficient.

Mallory is also not seen to teach adjusting the pH value of the mixture obtained from second step of the present invention. Mallory is seen to relate to the production of electroless nickel polyalloys. As noted in the Office Action, the plating bath employed by Mallory to produce its product ranges in pH from 5.9 to 9.6. In contrast, the process of the present invention involves changing the pH value from less than 2 to a value between 3 and 12. Mallory's bath is never seen to have a pH value of less than 2 and Mallory does not teach adjusting the pH value of a mixture with a pH value of less than 2. Consequently, the process of the present invention is not seen to be disclosed by Mallory.

Kawakami is not seen to compensate for the deficiencies of Mallory and Bonnemann, in that Kawakami is seen to be silent as to the adjustment of the pH value of a mixture of the second step of the present invention.

In view of the foregoing, Claim 1 is believed to be in allowable condition.

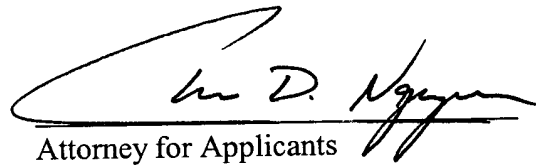
The remaining claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

Moreover, rejoinder of withdrawn Claims 67 to 71 and 75 to 80 is respectfully requested pursuant to MPEP § 821.04.

In view of the foregoing amendment and remarks, and no other matters being raised in the Office Action, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


Attorney for Applicants

Registration No. 54,336

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
Facsimile: (212) 218-2200

CA_MAIN 70866 v 2